United States Department of the Interior Minerals Management Service Mail Stop 4024 381 Elden Street Herdon, VA 20180-4817

Re: 1010-AC91, Rights-of-Use and Easement

My name is Aaron Garland, from Chicago, IL. I am a law student and hold a bachelor of science in Geological Engineering. I am writing to comment on the proposed modifications to the requirements governing the rights-of-use and easements and pipeline rights-of-way on the Outer Continental Shelf.

The increased rental rates for pipeline rights-of-way and the establishment of rentals for rights-of-use and easements are good ideas. As noted in the notice, there has been a major increase in the exploration of deepwater offshore oil and gas reserves. From 1998-2002 approximately 106 billion barrels of oil equivalent were taking from deepwater reserves by 14 oil companies. By some estimates, between the 2003-2007 period, almost 32.4 billion barrels of oil equivalent is being targeted for recovery by 37 oil companies. But, I do believe it is possible that current estimates of two requests per year for new or modified easements in water depths of 200 meters over the next 5 years, which was included in the notice, may be low and the rate is likely to increase in subsequent years.

With the increase in deepwater exploration there is an increased need for new technologies that require more easements to be requested by oil companies. The rental rates are a good way to cope with the administrative problems of these increased requests, as well as the lack of rent from the easements that would have occurred with the old rule. But, I do believe that there are other considerations that must be taken into account.

The Outer Continental Shelf, and more specifically the Gulf of Mexico, is a possible source of methane hydrates. These formations of methane hydrates that are found on the edge of the continental shelf may be a vast source of methane. There are some estimates that there may be as much as 3.177×10^{17} ft of methane gas contained within methane hydrates in the United States, a large portion of that hydrate being found off the continental shelf. Production of this methane is becoming more likely every day with research being done around the world, including research funded by the National

¹ Estimates taken from The World Deepwater Report 2003-2007, from Infield Systems, Ltd. London.

² Information concerning methane hydrates taken primarily from the website of the National Methane Hydrate R&D Program website, http://www.netl.doe.gov/scng/hydrate/, as well as from presentations at the Methane Hydrates Interagency R&D Conference, March 20-22, 2002 in Washington, D.C.

³ Numbers taken from estimates contained with the presentation by Timothy S. Collet, U.S. Geological Survey at the Methane Hydrates Interagency R&D Conference, March 20-22, 2002 in Washington, D.C.

Methane Hydrate R&D Program. In the fiscal year 2001 over \$17 million was spent on research through the National Program. Also, with the increased energy needs of the United States, it is becoming more important to find new sources of oil and gas. Therefore it is quite likely that exploration on the Outer Continental Shelf will actually increase more than expected.

Also, the effects of these methane hydrate deposits on the stability of the ocean floor are also of great concern. The increased drilling in the offshore areas for conventional oil and gas deposits will increasingly be in areas were there are methane hydrate deposits, and methane hydrate deposits themselves may become a source of methane. The production and/or dissociation, or melting of these methane hydrate may cause instability of the surrounding ocean floor, and also unique marine communities are often associated with methane hydrate outcrops. Therefore, companies will have to take this possible instability and the effects on marine life into account when building platforms and undergoing drilling operations. Likely, new technologies will have to be in place, and these new technologies may require more space and therefore require greater number of easements.

Again, I believe overall that increased rental rates for pipeline rights-of-way and the establishment of rentals for rights-of-use and easements are good ideas. There are many reasons why oil companies are likely to request more easements in the years to come. By charging rental rates for these rights-of-use and easements, the government can help ease a financial burden. It will allow the government to recoup the money that is lost from not allowing exploration on the easements.

This new regulation may also have an added affect. By charging rent for right-of-use and easements it will become marginally more expensive to drill in deepwater offshore. Also, by setting right-of use and easements aside there is less space for development around these drillings. These factors are likely to result in fewer platforms, and what platforms exist are likely to be of a floating type. All helping to minimize the effects exploration may have on the ocean environment.

Thank you for your consideration,

Aaron Garland 736 W. Buena Ave., Apt. 306 Chicago, IL 60613

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⁴ Numbers taken from Presentation by Brad J. Tomer, National Energy Technology Laboratory at the Methane Hydrates Interagency R&D Conference, March 20-22, 2002 in Washington, D.C.

⁵ Information concerning slope stability taken from Presentation by Robert LaBelle, US Minerals Management Service at the Methane Hydrates Interagency R&D Conference, March 20-22, 2002 in Washington, D.C.